



50C5

BEAM POWER TUBE

7-PIN MINIATURE TYPE

50C5

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC). 50 + 10% volts
 Current 0.15 amp

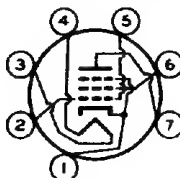
Direct Interelectrode Capacitances
(Approx.):⁰

Grid No.1 to plate. 0.6 μ f
 Grid No.1 to cathode & grid No.3,
 grid No.2, and heater 13 μ f
 Plate to cathode & grid No.3,
 grid No.2, and heater 8.5 μ f

Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-5/8"
 Maximum Seated Length 2-3/8"
 Length, Base Seat to Bulb Top (Excluding tip). . . 2" \pm 3/32"
 Diameter. 0.650" to 0.750"
 Dimensional Outline See General Section
 Bulb. T5-1/2
 Base. Small Button Miniature 7-Pin (JEDEC No.E7-1)
 Basing Designation for BOTTOM VIEW. 7CV

Pin 1- Cathode,
 Grid No.3
 Pin 2- Grid No.1
 Pin 3- Heater



Pin 4- Heater
 Pin 5- Grid No.1
 Pin 6- Grid No.2
 Pin 7- Plate

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE. 150 max. volts
 GRID-No.2 (SCREEN-GRID) VOLTAGE. 130 max. volts
 GRID-No.1 (CONTROL-GRID) VOLTAGE 0 max. volts
 GRID-No.2 INPUT. 1.4 max. watts
 PLATE DISSIPATION. 7 max. watts
 PEAK HEATER-CATHODE VOLTAGE:
 Heater negative with respect to cathode. . . 200 max. volts
 Heater positive with respect to cathode. . . 200[▲] max. volts
 BULB TEMPERATURE (At hottest point
 on bulb surface) 220 max. °C

← Indicates a change.

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→ Typical Operation and Characteristics:

Plate Voltage.	120	volts
Grid-No.2 Voltage.	110	volts
Grid-No.1 Voltage.	-8	volts
Peak AF Grid-No.1 Voltage.	8	volts
Zero-Signal Plate Current.	49	ma
Max.-Signal Plate Current.	50	ma
Zero-Signal Grid-No.2 Current.	4	ma
Max.-Signal Grid-No.2 Current.	8.5	ma
Plate Resistance (Approx.)	10000	ohms
Transconductance	7500	μmhos
Load Resistance.	2500	ohms
Total Harmonic Distortion.	10	%
Max.-Signal Power Output	2.3	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1 max.	megohm
For cathode-bias operation	0.5 max.	megohm

0 Without external shield.

▲ The dc component must not exceed 100 volts.

NOTE: Except for a different basing arrangement, which simplifies the problem of meeting Underwriters' Laboratories requirements in the design of ac/dc receivers, the 50C5 is similar to the miniature type 50B5.

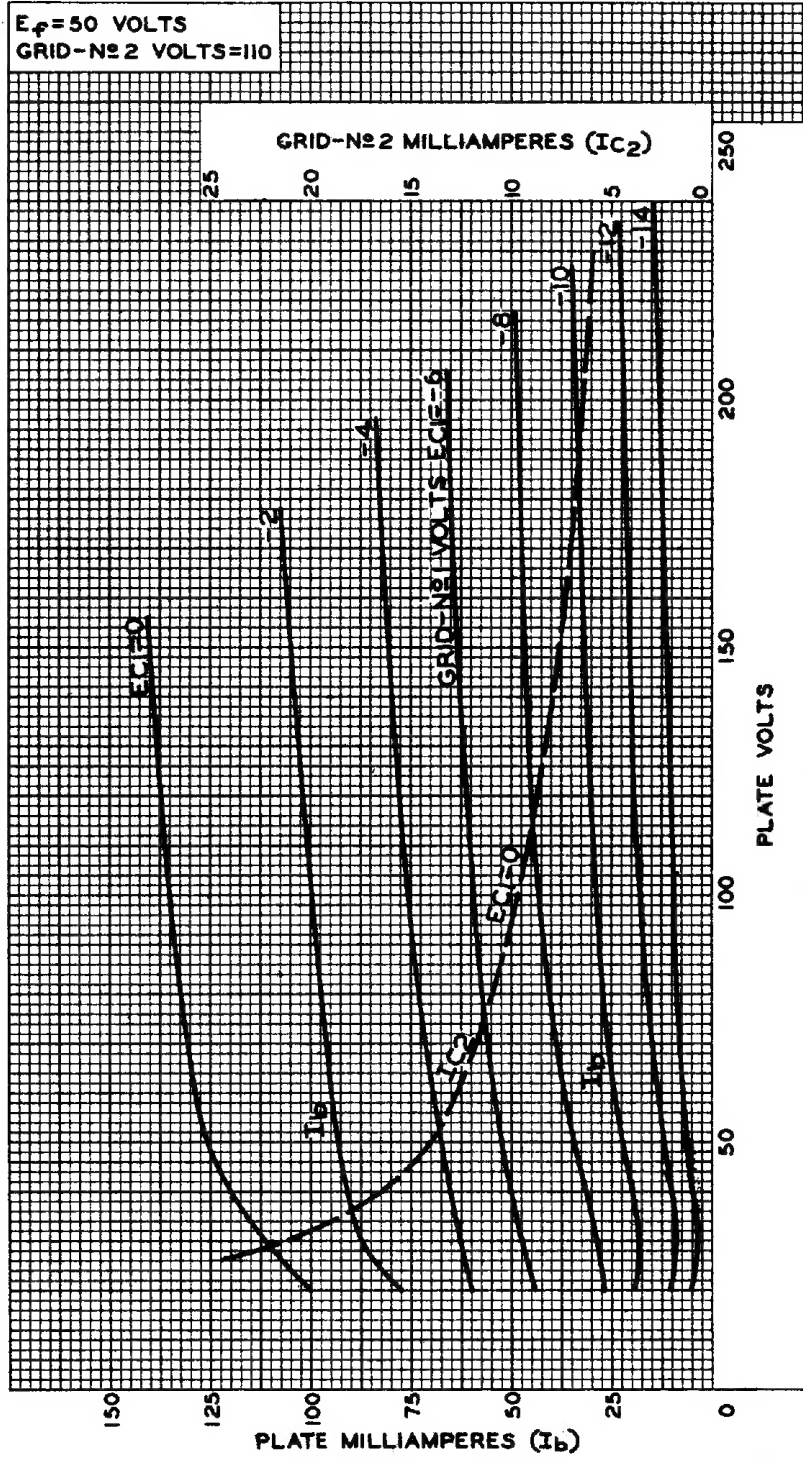
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AVERAGE CHARACTERISTICS



ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6603

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OPERATION CHARACTERISTICS

